

Appl. No.: 10/779,973
Amendment Dated June 17, 2005
Reply to Office Action of March 29, 2005

GRY-117US

Remarks/Arguments:**Amendment**

Claim 1 has been amended. The amendment is supported in the specification at least in paragraphs 17 and 20. No new matter has been introduced. This amendment merely emphasizes the effect of the invention, it does not change the scope of the claims.

Rejections under 35 U.S.C. § 102

Claims 1-5, 7, and 8 have been rejected under 35 U.S.C. § 102 (b) as being anticipated by Tsai et al. (US 6,308,667). Applicants respectfully traverse.

The Tsai reference discloses an electromechanical valve control actuator comprising two electromagnets driving a magnetic plate the movement of which controls the displacement of the valve. The magnetic plate has one or more teeth extending outward, the teeth being received in corresponding sockets in the cores of the corresponding electromagnets. When the magnetic plate approaches an electromagnet, the teeth provide a magnetic flux path that produces a more constant force of attraction during actuation of the valve.

Tsai et al. does not disclose the fact that the operation of the valve is linked to the saturation of the magnetic circuit formed by the electromagnet and the plate. Moreover, Tsai et al. fail to disclose the combination of the saturation of the magnetic circuit when the plate is in proximity of the electromagnet and the non-saturation of the magnetic circuit when the plate is located at a distance from it. Furthermore, one of ordinary skill in the art, based on the description provided by Tsai, would not understand that the magnetic circuit is in a state of saturation when the magnetic plate is proximate to the electromagnet and in a state of magnetic nonsaturation when the plate is located at a distance from the electromagnet, as required by claim 1.

Applicants therefore respectfully submit that US 6,308,667 does not disclose all of the limitations of Claim 1 of the present application, and therefore does not anticipate Claim 1. Claims 2-5, 7, and 8, being properly dependent from Claim 1, are not anticipated by this reference for at least the same reasons.

Rejections under 35 U.S.C. § 103

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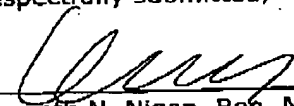
Claim 6 has been rejected under 35 U.S.C. 103 (a) as being unpatentable over Tsai et al. (US 6,308,667) in view of Rookes et al. (US 5,992,821). Applicants respectfully traverse.

The Rookes et al. patent concerns an electro-magnetically operated valve in which at least a portion of the armature member and/or the pole piece has in or on it a coating or layer of material having a higher mechanical hardness or a higher magnetic permeability than the material of the armature and/or pole piece. Rookes et al., however, fail to disclose the saturation of the magnetic circuit when the valve is in proximity of the pole piece and the nonsaturation of this circuit when the valve is located at a distance from the same pole piece. Thus, this reference does not disclose or suggest all the limitations of Claim 1 of the present application.

As submitted above, the Tsai reference likewise does not disclose or suggest all limitations of Claim 1. Applicants respectfully submit that, as since Claim 6 is properly dependent from Claim 1, these two references in combination cannot be used to reject Claim 6 under 35 U.S.C. §103 (a).

In view of the foregoing amendments and remarks, Applicant requests that the Examiner reconsider and withdraw the rejection of claims 1-8.

Respectfully submitted,

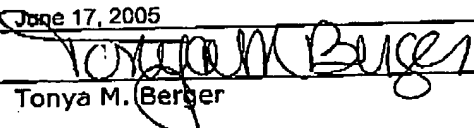

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Tonya M. Berger

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